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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,532	11/14/2003	Terho Kaikuranta	915-006.30	2212

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WARE FRESSOLA VAN DER SLUYS &
ADOLPHSON, LLP
BRADFORD GREEN, BUILDING 5
755 MAIN STREET, P O BOX 224
MONROE, CT 06468

EXAMINER

PIZIALI, JEFFREY J

ART UNIT	PAPER NUMBER
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2629

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 10/714,532	Applicant(s) KAIKURANTA, TERHO	
	Examiner Jeff Piziali	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____. | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) <input type="checkbox"/> Notice of Informal Patent Application
6) <input type="checkbox"/> Other: _____. |
|--|--|

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 1-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. Claim 1 recites the limitation "a subsequent second user input" in line 4. There is insufficient antecedent basis for this limitation in the claim. In particular, the claim neglects to explicitly recite what event/action the "second user input" is subsequent to. It would be unclear to one having ordinary skill in the art whether the "second user input" is subsequent to the "first user input" or subsequent to "recognizing a dual point user input" or subsequent to something else entirely.
5. Claim 2 recites the limitation "said first position and said second position" in line 2. There is insufficient antecedent basis for this limitation in the claim.

6. Claim 4 recites the limitation "said first position" in line 2. There is insufficient antecedent basis for this limitation in the claim.
7. Claim 5 recites the limitation "the gradient" in line 2 and the limitation "said first position and said second position" in line 2. There is insufficient antecedent basis for either limitation in the claim.
8. Claim 9 recites the limitation "said first position" in line 3 and the limitation "said second position" in line 4. There is insufficient antecedent basis for either limitation in the claim.
9. Claim 11 recites the limitation "said first position" in line 2. There is insufficient antecedent basis for this limitation in the claim.
10. Claim 14 recites the limitation "said second position" and the limitation "the new position" in line 2. There is insufficient antecedent basis for either limitation in the claim.
11. Claim 15 recites the limitation "the actual user input" in line 2. There is insufficient antecedent basis for this limitation in the claim.
12. Claim 17 recites the limitation "said second position" in line 1 and the limitation "said first position" in line 2. There is insufficient antecedent basis for either limitation in the claim.

13. Claim 18 recites the limitation "a subsequent third user input" in line 2. There is insufficient antecedent basis for this limitation in the claim. In particular, the claim neglects to explicitly recite what event/action the "third user input" is subsequent to. It would be unclear to one having ordinary skill in the art whether the "third user input" is subsequent to the "first user input" or subsequent to "recognizing a dual point user input" or subsequent to something else entirely.

14. Claim 19 recites the limitation "said first... position" in line 3; the limitation "the coordinates" in line 3; and the limitation "said triple point user input" in lines 3-4. There is insufficient antecedent basis for any of these limitations in the claim.

15. Claim 20 recites the limitation "said first position" in line 2; the limitation "the coordinate" in line 2; the limitation "the presence" in line 3; and the limitation "said first position" in line 4. There is insufficient antecedent basis for any of these limitations in the claim.

16. Claim 24 recites the limitation "the actual user input" in lines 2-3. There is insufficient antecedent basis for this limitation in the claim.

17. Claim 24 is further rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted

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structural cooperative relationships are between "a position" (recited in line 5) and "a position" (recited in line 10). It would be unclear to one having ordinary skill in the art whether these two claimed positions are one and the same, or whether there are two distinct positions being claimed.

18. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are between "a processing unit" (recited in claim 25, line 2) and "a processing unit" (recited in claim 24, line 16). It would be unclear to one having ordinary skill in the art whether these two processing units are one and the same, or whether there are two distinct processing units being claimed.

19. The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent respectively upon rejected base claims.

Claim Rejections - 35 USC § 101

20. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

21. Claims 1-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent Claim 1, along with dependent claims 2-23, recite the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. As such, claims 1-23 do not fall within any of the categories of patentable subject matter set forth in § 101.

The claimed signal(s) is clearly not a "process" under § 101 because it is not a series of steps. 1 D. Chisum, Patents § 1.02 (1994).

The claimed signal(s) has no physical structure, does not itself perform any useful, concrete and tangible result and, thus, does not fit within the definition of a machine. Corning v. Burden, 56 U.S. (15 How.) 252, 267 (1854).

The claimed signal(s) is not matter, but a form of energy, and therefore is not a composition of matter. Shell Development Co. v. Watson, 149 F. Supp. 279, 280, 113 USPQ 265, 266 (D.D.C. 1957), aff'd, 252 F.2d 861, 116 USPQ 428 (D.C. Cir. 1958).

The Supreme Court has read the term "manufacture" in accordance with its dictionary definition to mean "the production of articles for use from raw or prepared materials by giving to these materials new forms, qualities, properties, or combinations, whether by hand-labor or by machinery." Diamond v. Chakrabarty, 447 U.S. 303, 308, 206 USPQ 193, 196-97 (1980) (quoting American Fruit Growers, Inc. v. Brogdex Co., 283 U.S. 1, 11, 8 USPQ 131, 133 (1931), which, in turn, quotes the Century Dictionary). Other courts have applied similar definitions. See American Disappearing Bed Co. v. Arnaelsteen, 182 F. 324, 325 (9th Cir. 1910), cert. denied, 220 U.S. 622 (1911). These definitions require physical substance, which the claimed signal(s) does not have.

Claim Rejections - 35 USC § 102

22. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

23. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokioka et al (US 6,255,604 B1).

Regarding claims 1-23, even if these claims were arguably directed to both statutory and definite subject matter, Tokioka still discloses all the presently claimed subject matter, and clearly anticipates claims 1-23 (see Fig. 1; Column 4, Line 21 - Column 5, Line 60 in particular).

Regarding claim 24, Tokioka discloses a touch based input device controller [Fig. 1; 1] for a touch based user input device [Fig. 1; 9], wherein said input device is only capable of outputting a single input position signal [Fig. 1; "touch input detection"] that depends on the actual user input, comprising, an input [Fig. 1; 5] connectable to said touch based user input device to receive successive position signals each representing a position [[Fig. 1; x & y] on said touch based user input device, which a user has touched, a memory [Fig. 1; 1c], connected to said input, to store at least one of said position signals, a differentiator [Fig. 1; 6] to detect time dependent transition properties between two different successive positions, a first evaluation circuit [Fig. 1; 7] connected to said differentiator to determine, if a position following a preceding position is caused by a single point user input or by a dual point user input (i.e., one-

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point input mode vs. two-point input mode), a second evaluation circuit [Fig. 1; 3], connected to said input, said memory and said first evaluation circuit, wherein said second evaluation circuit is generate a dual point on basis of said successive positions, and an output, connected to said second evaluation unit, connectable to a processing unit [Fig. 1; 1a] (see Column 4, Line 21 - Column 5, Line 60).

Regarding claim 25, Tokioka discloses an input [Fig. 1; 4a & 4b] connected to said second evaluation unit, connectable to a processing unit [Fig. 1; 1a] to receive control information from said processing unit to control the operation of said second evaluation unit (see Column 4, Line 21 - Column 5, Line 60).

Regarding claim 26, Tokioka discloses an electronic device comprising a touch based input device, a processor [Fig. 1; 1a] and controller [Fig. 1; 1] connecting said touch based input device [Fig. 1; 9] to said processor (see Column 1, Lines 9-19).

Regarding claim 27, Tokioka discloses said device is a mobile terminal device (see Column 17, Lines 21-26).

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Lu (US 6,995,752 B2), Satoh (US 6,943,779 B2), Gillespie et al (US 6,750,852 B2), Rambaldi et al (US 6,292,173 B1), Goyins et al (US 6,246,395 B1), Levy (US 6,037,882 A),

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Furuhata et al (US 5,943,043 A), Bisset et al (US 5,825,352 A), Shieh (US 5,764,222 A), Stein et al (US 5,589,856 A), Duwaer (US 5,402,151 A), and Dunthorn (US 4,914,624 A) are cited to further evidence the state of the art pertaining to touch based input devices and methods.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala can be reached on (571) 272-7681. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Jeff Piziali
16 March 2007